

Appl. No. 10/627,029
Amdt dated Feb.16, 2006
Reply to Office action dated Dec. 7, 2005

Amendments to specification:

Please replace the title with the following title:

**METHOD FOR PROCESSING A BLOOD PRODUCT WITH A BAG SET HAVING A
MULTI-WAY CONNECTOR**

Please insert the following paragraph before paragraph [0001]:

**This application is a Division of U.S. Patent Application Serial Number 10/000,185 filed
November 30, 2001, now U.S. Patent No. 6,656,105, which is a Continuation of International
PCT Application No. PCT/SE00/01076 filed May 2000.**

Please insert the following section heading immediately before paragraph [0001]:

FIELD OF INVENTION

Please insert the following section heading between paragraph [0001] and [0002]:

BACKGROUND

Please replace paragraph [0002] with the following amended paragraph:

[0002] Different types of centrifuges intended for processing blood and blood components and also several types of ring bags intended for using in these centrifuges are to be found described in, for example, WO 87/06857, U.S. Pat. No. 5,114,396, U.S. Pat. No. 5,723,050, WO 97/30715, WO 98/35757. Of the centrifuges described therein it is primarily those that are included in the two latter-named patent documents that purpose-intended ring bags are utilized combined with standard secondary bags. In the blood processing bags that are stated in WO 87/06857 and in U.S. Pat. No. 5,114,396 instead of purpose-intended ring bags a more complicated type of bag is included, which consists of a ring formed blood processing chamber manufactured as one unit with a centrally arranged secondary bag. In U.S. Pat. No. 5,723,050 a further description is given of a ring bag

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intended for the same purpose which, in turn, is secured in a central assembly cover which, on the one hand, gives a central control of the ring bag and, on the other hand, to give room internally for the required secondary bags. In WO 97/30715 and [[WO 98/757]] WO 98/35757 it is indicated that the ring bags which are used during centrifuging are secured in the centrifuge by a number of holes on their periphery intended to be fitted over the pins secured in the centrifuge and which are intended for that purpose. This is all well and good but is not sufficiently good as has been shown during the course of the years. The stresses on the bags inner periphery edges, especially when it is only thin pins holding them in place, can be so excessive that the edges of the bags rupture.

Please insert the following section heading between paragraph [0002] and [0003]:

SUMMARY OF THE INVENTION

Please replace paragraph [0009] with the following amended paragraph:

[0009] Connected to the aforementioned motor there is a cassette or holder in which the number of concentrate bags with Buffy Coat that are intended to be included in a process can be attached. Before these concentrate bags are attached to the cassette [[they been joined have]], they have been joined by sterile welding, via an own connecting tube, to the bag set intended for processing to which there is included a connecting tube with which all bags with Buffy Coat can be connected to a bag with the required amount of diluting solution, as well as via an other connecting tube to a ring bag and finally a connecting tube between the ring bag and a storage bag for the desired final product.

Please insert the following section heading between paragraph [0011] and [0012]:

BRIEF DESCRIPTION OF THE DRAWINGS

Please insert the following section heading between paragraph [0016] and [0017]:

DETAILED DESCRIPTION

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Please replace paragraph [0017] with the following amended paragraph:

[0017] The centrifuge shown in FIG. 1 has rotor 1, centre chamber 2 where, for example, the final storage bags for the produced products can be located during the centrifuging operation while those connected to the same are filled with the desired component from the centrifuge's ring bag. Furthermore, ring chamber 3 is included for ring bag 4. In the latter the actual centrifuging operation is carried out. Beneath the ring bag and separated from it by a membrane is chamber 5 which can be filled with a hydraulic fluid with the purpose of exposing ring bag 4 to an external pressure for emptying the said ring bag. Centrifuge rotor 1 has furthermore a clockwise rotating lid 6 with the ring bag in which securing function 7 for ring bag 4 is built in. In FIG. 2 there is a dotted line 7 which illustrates where the clamping function affects the ring bag. In FIG. 1 ring bag 4 is drawn filled with fluid 8, which shall be centrifuged. In centrifuge rotor 1 there are three built-in supports 9-11. Of these only support 9 is shown on FIG. 1 but how the others internal position relates to this is shown in FIG. 2. In the supports, which have a primary function of defining ring bag 4's position in the centrifuge and holding the bags in position during [[centrifuging guide]] centrifuging, guide groove 12 for different connecting tubes for the blood processing set can moreover be arranged. In these guide grooves the clamping function can be built in on the one hand, which makes them usable as a check valve for regulating the connection between the various parts of the bag sets and, on the other hand, as a welding function with which sealing and cutting of the same tubes can be carried out. Support 9 thus presupposes movement in arrow 13's direction and [[by]] could therefore function as a clamp valve for the arranged tube in guide groove 12. The welding function on the supports requires access to electric power in the centrifuge rotor and, apart from that, requires contact lines between the rotor and centrifuge stand for the different control systems of the centrifuge. This has been brought about by means of slip ring connectors 14-15 between the rotor and stand where 14 marks the centrifuge's rotating part and 15 its included secured part in the centrifuge stand. On the figure the centrifuge motor is marked 16. This implies, as shown on the sketch, operating the centrifuge's rotor and by that means driving belt 47 located on the motor's driving pulley 48 and the centrifuge's driving pulley 49. The centrifuge's rotation bearing is marked 50 and the centrifuge's rotating guide is marked 51. Furthermore, in the centrifuge's inner lid there is

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a central opening 53 which makes centre chamber 2 accessible externally even when the inner lid is closed.